CLAIMS

1.   An inducible gene expression system comprising:

a first vector comprising at least one retroviral promoter;

at least one factor to induce the retroviral promoter; and

at least one gene product expressed in proportion to retroviral promoter induction.

2.   The system of claim 1 wherein the first vector comprises a host cell.

3.   The system of claim 1 wherein the first vector is selected from a group consisting of a retroviral vector, a plasmid, a cosmid, an adeno-associated viral vector, and an adenoviral vector.

4.   The system of claim 3 wherein the first vector comprises a pseudo-type retroviral vector.

5.   The system of claim 1 wherein the first vector further comprises an RNA export element.

6.   The system of claim 5 wherein the RNA export element comprises a woodchuck mRNA processing enhancer.

7.   The system of claim 1 wherein the retroviral promoter comprises at least one promoter selected from a group consisting of a bovine leukemia virus promoter, a human T-lymphocyte virus promoter, a simian immunodeficiency virus promoter, and a caprine virus promoter.

8.   The system of claim 1 wherein the at least one factor comprises a Tax polypeptide.

9.   The system of claim 8 wherein the Tax polypeptide comprises a polypeptide selected from a group consisting of a bovine leukemia virus Tax polypeptide, a human T-lymphocyte virus Tax polypeptide, a simian immunodeficiency virus Tax polypeptide, and a caprine virus Tax polypeptide.

10.   The system of claim 8 wherein the Tax polypeptide comprises amino acids 48-60 of an HIV Tat protein.

11.   The system of claim 10 wherein the Tax polypeptide comprises the amino acids 48-60 of the HIV Tat protein fused to a terminus of said Tax polypeptide.

12.   The system of claim 10 wherein the Tax polypeptide comprises the amino acids 48-60 of the HIV Tat protein substituted for the corresponding amino acids of said Tax polypeptide.

13.   The system of claim 1 wherein the at least one factor is provided exogenously.

14.   The system of claim 1 wherein the at least one factor comprises a second vector.

15.   The system of claim 14 wherein the second vector comprises a host cell.

16.   The system of claim 14 wherein the second vector comprises a nucleic acid sequence encoding a Tax polypeptide.

5   17.   The system of claim 16 wherein the Tax polypeptide is selected from a group consisting of a bovine leukemia virus Tax, a human T-lymphocyte virus Tax, a simian immunodeficiency virus Tax, and a caprine virus Tax.

18.   The system of claim 1 wherein at least a portion of the system

10   comprises a kit.

19.   A method comprising:
        providing a first vector comprising at least one retroviral promoter;
        providing at least one factor corresponding to the retroviral

15   promoter;
        inducing the retroviral promoter with the at least one factor; and
        expressing at least one protein based on the induction of the retroviral promoter.

20   20.   The method of claim 19 wherein the first vector comprises a host cell.

21.   The method of claim 19 wherein the first vector is selected from a group consisting of a retroviral vector, a plasmid, a cosmid, an adeno-associated

25   viral vector, and an adenoviral vector.

22.   The method of claim 21 wherein the first vector comprises a pseudo-type retroviral vector.

23.   The method of claim 19 wherein the first vector further comprises an RNA export element.

5   24.   The method of claim 23 wherein the RNA export element comprises a woodchuck mRNA processing enhancer.

25.   The method of claim 19 wherein the retroviral promoter comprises at least one promoter selected from a group consisting of a bovine leukemia virus

10   promoter, a human T-lymphocyte virus promoter, a simian immunodeficiency virus promoter, and a caprine virus promoter.

26.   The method of claim 19 wherein the at least one factor comprises a Tax polypeptide.

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27.   The method of claim 26 wherein the Tax polypeptide comprises a polypeptide selected from a group consisting of a bovine leukemia virus Tax polypeptide, a human T-lymphocyte virus Tax polypeptide, a simian immunodeficiency virus Tax polypeptide, and a caprine virus Tax polypeptide.

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28.   The method of claim 26 wherein the Tax polypeptide comprises amino acids 48-60 of an HIV Tat protein.

29.   The method of claim 28 wherein the Tax polypeptide comprises the

25   amino acids 48-60 of the HIV Tat protein fused to a terminus of said Tax polypeptide.

30. The method of claim 28 wherein the Tax polypeptide comprises the amino acids 48-60 of the HIV Tat protein substituted for the corresponding amino acids of said Tax polypeptide.

31. The method of claim 19 wherein the at least one factor is provided exogenously.

32. The method of claim 19 wherein the at least one factor comprises a second vector.

33. The method of claim 32 wherein the second vector comprises a host cell.

34. The method of claim 32 wherein the second vector comprises a nucleic acid sequence encoding a Tax polypeptide.

35. The method of claim 34 wherein the Tax polypeptide is selected from a group consisting of a bovine leukemia virus Tax, a human T-lymphocyte virus Tax, a simian immunodeficiency virus Tax, and a caprine virus Tax.

36. An inducible gene expression system comprising:
   first vector means comprising at least one retroviral promoter;
   means for inducing the retroviral promoter; and
   means for expressing at least one protein based on the induction of the retroviral promoter.

37.   The system of claim 36 further comprising means for hosting the first vector means.

5   38.   The system of claim 36 further comprising RNA export element means.

39.   The system of claim 38 further comprising mRNA processing enhancer means.

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40.   The system of claim 36 further comprising means for exogenous induction of the retroviral promoter.

41.   The system of claim 36 further comprising means for inducing the
15   retroviral promoter with a second vector.

42.   The system of claim 41 further comprising means for hosting the second vector.